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EXAMINER

MAHMOUDI, HASSAN

ART UNIT

PAPER NUMBER

2175

DATE MAILED: 12/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/579,623

Applicant(s)

IBITAYO ET AL.

Examiner

Tony Mahmoudi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 May 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 **DOV POPOVICI**

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ..

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

DETAILED ACTION

Drawings

1. The drawings are objected to because of the following informalities:

Figure 5, as referred to in the disclosure (page 4, line 19) is not included in the drawings.

Correction is required in response to this office action.

Specification

2. The abstract of the disclosure is objected to because it includes improper

language such as “discloses” (in line 3.) See MPEP 608.01(b).

Correction is required in response to this office action.

3. The specification is objected to because of the following informalities:

On page 4, line 19, the disclosure refers to “Figure 5”. There are only 4 figures (1-4) submitted in the drawings.

Correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-4 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Bowman-Amuah (U.S. Patent No. 6,442,748.)

As to claim 1, Bowman-Amuah teaches a framework (see Abstract) for isolating a business component (see column 3, lines 66-67) from specific implementations of a datastore (see column 8, lines 58-60), comprising:

(a) a database wrapper (see column 143, lines 19-21) in communication with a business component (see column 216, lines 13-18);

(b) a domain object factory in communication with the database wrapper (see column 259, lines 11-17, where “domain object factory” is read on “construction of domain objects”);

(c) a domain object in communication with the domain object factory (see figure 161, where the “domain object 16100” is in communication with the “domain object factory”, illustrated as account “data handler 16102”, and see column 277, lines 48-67); and

(d) a datastore in communication with the domain object (see figure 159.)

As to claim 2, Bowman-Amuah teaches wherein the database wrapper further comprises a database wrapper interface (see column 143, lines 19-21) in communication with the business component (see column 223, line 66 through column 224, line 4) and a database wrapper implementation implementing the domain object factory (see column 259, lines 11-17.)

As to claim 3, Bowman-Amuah teaches wherein the domain object factory (see figure 161, where the “domain object factory” is illustrated as “account data handler 16102”) further comprises a domain object interface in communication with the database wrapper (see figure 159) and a domain object factory implementation implementing the domain object (see column 259, lines 11-17.)

As to claim 4, Bowman-Amuah teaches wherein the domain object further comprises a domain object interface in communication with the domain object factory (see figure 161, where the “domain object” **16100** is shown in communication with the “domain object factory”, illustrated as “account data handler **16102**”) and a domain object implementation retrieving data from a datastore (see column 245, lines 17-21.)

As to claim 9, Bowman-Amuah teaches a method (see Abstract) for isolating a business component (see column 3, lines 66-67) from specific implementations of a datastore (see column 8, lines 58-60), comprising:

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- (a) interfacing a database wrapper (see column 143, lines 19-21) to a business component (see column 216, lines 13-18);
- (b) implementing the database wrapper (see column 127, line 60 through column 128, line 4, and see column 232, lines 9-36, and see figure 104);
- (c) interfacing a domain object factory to the database wrapper (see column 259, lines 11-17, where “domain object factory” is read on “construction of domain objects”);
- (d) implementing the domain object factory (see column 124, lines 15-19, where “implementing the domain object factory” is read on “decomposing the system into domain objects”);
- (e) interfacing a domain object to the domain object factory (see figure 161, where the “domain object” **16100** is in communication with the “domain object factory”, illustrated as account data handler **16102**, and see column 277, lines 48-67); and
- (f) implementing the domain object to retrieve data from a datastore (see column 245, lines 17-21.)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 5-8 and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowman-Amuah (U.S. patent No. 6,442,7487) in view of Brownell et al (U.S. Patent No. 6,009,266.)

As to claim 5, Bowman-Amuah teaches a domain object interface (see figures 159 and 160.)

Bowman-Amuah does not teach a transient data converter for converting the domain object from a persistent state to a transient state.

Brownell et al teaches methods, apparatus and data structures for managing transient and persistent distributed objects (see Abstract), in which he teaches a transient data converter for converting the domain object from a persistent state to a transient state (see figure 4a, and see column 11, lines 1-17.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Bowman-Amuah to include a transient data converter for converting the domain object from a persistent state to a transient state.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Bowman-Amuah by the teaching of Brownell et al, because a transient data converter for converting the domain object from a persistent state to a transient state, would enable the system to move object data from permanent storage devices into a temporary storage device, such as cache memory, so that the objects can be in transit and can be shared/distributed to other computers which are a part of the distributed object operating environment.

As to claims 6 and 11, Bowman-Amuah as modified teaches wherein the datastore is a relational database (see Bowman-Amuah, column 5, lines 22-25.).

As to claims 7 and 12, Bowman-Amuah as modified teaches wherein the datastore is an object database (see Bowman-Amuah, column 62, lines 59-63.)

As to claims 8 and 13, Bowman-Amuah as modified teaches wherein the datastore is accessed remotely (see Bowman-Amuah, column 48, line 56 through column 49, line 6.)

As to claim 10, Bowman-Amuah teaches the method further comprising retrieving data from the datastore (see column 245, lines 17-21.)

Bowman Amuah does not teach converting data from a persistent state to a transient state.

Brownell et al teaches methods, apparatus and data structures for managing transient and persistent distributed objects (see Abstract), in which he teaches converting data from a persistent state to a transient state (see figure 4a, and see column 11, lines 1-17.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Bowman-Amuah to include converting data from a persistent state to a transient state.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Bowman-Amuah by the teaching of Brownell et al,

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because converting data from a persistent state to a transient state, would enable the system to move object data from permanent storage devices into a temporary storage device, such as cache memory, so that the objects can be in transit and can be shared/distributed to other computers which are a part of the distributed object operating environment.

As to claim 14, Bowman-Amuah teaches a method (see Abstract) for isolating a business component (see column 3, lines 66-67) from specific implementations of a datastore (see column 8, lines 58-60), comprising:

(a) supplying a database wrapper (see column 143, lines 19-21, and see column 216, lines 13-18);

(b) using the database wrapper to begin a database session (see column 69, lines 39-58, where “communication session” is discussed, and see column 143, lines 19-21, where “database wrapper” is used to provide database interface”);

(c) using the database wrapper to obtain a domain object factory (see column 124, lines 15-19, where “obtaining domain object factory” is read on “decomposing the system into domain objects”);

(d) using the domain object factory to create a domain object (see column 259, lines 11-17, where “creating domain objects” is read on “construction of domain objects”);

(f) ending the database session (see column 69, lines 52-53, where “opening a session” is discussed. It is inherent that applications which begin a database session, also end the database session when session tasks are complete); and

(g) returning the domain object to the business component (see column 69, lines 55-58.)

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Bowman-Amuah does not teach:

(e) converting the domain object from a persistent state to a transient state.

Brownell et al teaches methods, apparatus and data structures for managing transient and persistent distributed objects (see Abstract), in which he teaches converting the domain object from a persistent state to a transient state (see figure 4a, and see column 11, lines 1-17.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Bowman-Amuah to include converting the domain object from a persistent state to a transient state.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Bowman-Amuah by the teaching of Brownell et al, because converting the domain object from a persistent state to a transient state, would enable the system to move object data from permanent storage devices into a temporary storage device, such as cache memory, so that the objects can be in transit and can be shared/distributed to other computers which are a part of the distributed object operating environment.

Response to Arguments

8. Applicant's arguments filed on 19-September-2002 with respect to claims 1-14 have been fully considered but they are moot in view of the new grounds for rejection.

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Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of art with respect to data retrieval, database wrappers, and database management in general

U.S. Patent No. 5,864,866 to Henckel et al.

U.S. Patent No. 5,689,645 to Schettler et al.

10. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Tony Mahmoudi whose telephone number is (703) 305-4887. The examiner can normally be reached on Mondays-Fridays from 08:00 am to 04:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached at (703) 305-3830.

tm

November 26, 2002


DOV POPOVICI
SUPERVISORY PATENT EXAMINER
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